

Proposed SIP Requirements Rule for the 2008 Ozone NAAQS

Mass. DEP SIP
Steering Committee
August 21, 2013

Overview

- Massachusetts has one ozone nonattainment area, Dukes County, which is marginal.
- Rulemaking timeline
- SIP Requirements Rule
- Discussion/Questions

Timeline

- Published in the Federal Register June 6, 2013
 - (78 FR 34178)
- Public comment period began June 6, 2013
 - Public hearing in Washington, DC on June 25, 2013
 - 90-day public comment period ends September 4, 2013
- Anticipated final rule in early 2014

SIP Requirements for Areas that are Nonattainment for the 2008 Ozone NAAQS

Purposes of the Rulemaking

- To provide states with clear guidance for meeting the 2008 ozone NAAQS in designated nonattainment areas.
- To revoke the 1997 8-hour ozone NAAQS and establish flexibility for areas still working to complete the control requirements of that NAAQS.

CAA Nonattainment Area SIP Submittal Deadlines

- Note: Infrastructure SIPs were due from all states in March 2011. The EPA already made findings of failure to submit, and started FIP clocks for states that did not submit a complete SIP. Mass. I-SIP out for public comment.
- The CAA establishes maximum statutory deadlines for submitting various SIP elements.
 - Emission inventories and emission statement SIPs are due from states with Marginal and higher areas 2 years after the effective date of designation (July 20, 2014).
 - RACT SIPs are due from Moderate and higher areas, and all states within the OTR, 2 years after the effective date of designation (July 20, 2014).
 - 15% RFP SIPs are due 3 years after the effective date of designation (July 20, 2015).
 - Attainment plan (RACT) and attainment demonstration SIPs due 3 or 4 years after designation (July 20, 2015 for Moderate areas; July 20, 2016, for Serious and higher areas)
 - RFP SIPs showing an average of 3% reductions in emissions per year after the initial 6-year period are due 4 years after the effective date of designations from Serious and higher areas (July 20, 2016).
- If EPA determines that an area attains before SIPs are due, the planning SIP submittal requirements due at 3 years can be suspended (Clean Data Policy).

Proposed SIP Due Dates

- We are proposing two options for deadlines for nonattainment area SIPs (RACT SIPs, attainment demonstration SIPs, and RFP SIPs):
 - Option 1: timeframe provided by statute.
 - Option 2 (preferred): states may choose to submit SIPs in timeframe provided by statute, or they may submit a combined submittal of emissions inventory, emission statement, RACT, RFP, attainment plan (RACTM), and attainment demonstration SIPs at 30 months (November 20, 2014).
- Serious and above areas have 4 years to develop attainment demonstration and RFP SIPs.

Modeling Attainment Demonstration

- Serious and above areas (and multi-state Moderate areas) are required to use photochemical grid modeling to demonstrate attainment.
- Model results are used to determine the amount of VOC and/or NO_x emission reductions that are needed for the area to attain the NAAQS.
- EPA has specified approved models and has issued guidance..
- The rule directs the reader to the current modeling guidance.
- The guidance addresses how high electricity demand days (HEDDs) can be characterized.
- EPA does plan to update the guidance for the 2008 ozone NAAQS.

Reasonable Further Progress (RFP)

- Recommend areas use 2011 as a base year for RFP.
- Allow areas to choose base year for RFP calculations that pre-dates 2011.
- Credit for reductions only from within the same nonattainment area.
- Eliminate “pre-1990 adjustments” calculation for RFP.

Options for 15% VOC Reduction for First 6 Years

- 15% reduction plan is required for Moderate and above areas
 - CAA requires these reductions to be VOC-only, even though NO_x reductions are now known in some cases to be more effective at reducing ozone.
 - Additional VOC reductions could be difficult to achieve for some existing nonattainment areas.
- Proposing to allow all areas to substitute NO_x for VOC in the 15% SIP, including any area that previously met 15% RFP 1-hr or 1997 NAAQS, and any area that can demonstrate achievement of 15% VOC reduction from 1990 baseline.
 - Alternatively, proposing to allow such substitution for OTR areas that can demonstrate achievement of a 15% VOC reduction from 1991-1996.
- Areas classified Serious and higher are required to achieve an average of 3%/year reduction in emissions (can be VOC, NO_x or a combination) starting 6 years after designation until the attainment date.

Reasonably Available Control Technology (RACT)

- Moderate and above areas, and all areas of the OTR, are required to implement RACT for:
 - VOC sources covered by a control techniques guideline (CTG) document;
 - Other major stationary sources of VOC located in the area; and
 - Major stationary sources of NO_x in the area, unless the area has received a NO_x waiver.
- Proposing that all RACT controls must be implemented by Jan. 1, 2017.
 - This is 53 months (roughly equivalent to 54 months in the CAA) from the effective date of designations.
- RACT requirement for EGUs not presumed to be satisfied by CAIR/CSAPR, but states can provide a demonstration.
- Seeking comment on modifying existing guidance to provide additional flexibility for VOC RACT requirements by considering the air quality benefit of further VOC control.

Vehicle and Fuels Requirements

- Gasoline vapor recovery
 - ORVR is now in sufficient use that the requirement for Stage II vapor recovery systems at fuel dispensing stations can be waived in non-OTR areas. Stage II previously applied to Serious and above areas. (77 FR 28772)
 - EPA issued separate guidance on phasing out existing SIP-approved Stage II programs
- Vehicle inspection and maintenance programs are required in all Moderate and above ozone nonattainment areas with a population over 200,000 (or over 100,000 for OTR).
 - There are currently no new I/M areas.
- In this proposal, EPA solicits comment on aligning the I/M SIP deadline with the attainment SIP deadline.
- EPA also notes ability to approve alternative mobile source controls getting equivalent reductions in place of I/M.
- Lastly, EPA identifies implementation flexibilities for I/M programs made possible by predominance of onboard diagnostics (OBD) in current fleet.

New Source Review (NSR)

- All nonattainment area SIPs must include provisions to require permits for the construction and operation of new or modified major stationary sources.
- SIPs for attainment areas in the Ozone Transport Region (OTR) must also meet nonattainment area NSR requirements.
- For new nonattainment areas, SIPs containing NSR rules must be submitted by 3 years after the effective date of designation.
- Affected sources must install technology that meets the lowest achievable emission rate (LAER), secure emission reductions to offset any increases in VOC or NO_x emissions, and perform other analyses.
- The amount of offsets needed depends on the area's classification:
 - Marginal 1.1:1, Moderate 1.15:1, Serious 1.2:1, Severe 1.3:1, Extreme 1.5:1
 - OTR same as Moderate areas unless they have a higher classification

Contingency Measures

- Attainment and RFP Plans are required to have contingency measures that would go “automatically” into effect if the area fails to make reasonable further progress, or to attain by the applicable attainment date.

Ozone Transport

- Rural Transport NAAs
 - Areas that meet the criteria only need to meet Marginal area requirements.
 - No Moderate or higher areas currently meet the rural transport criteria
 - Nonattainment boundary may not include or be adjacent to a census-defined MSA.
 - Emissions from the area cannot significantly contribute to ozone in that area or another area.
 - Soliciting comment on applying US Census Bureau's "2000 Standards for Defining Metropolitan and Micropolitan Statistical Areas" to the CAA's MSA provision.
- International Transport
 - States can elect to address through §179B of the CAA
 - SIP must meet all other requirements of the CAA
 - SIP demonstrates area would attain "but for" emissions from outside the U.S.

NO_x Requirements (§182(f))

- All mandatory control requirements for major stationary sources of VOC also apply to major sources of NO_x.
- We are proposing that an exemption/NO_x Waiver granted for 1-hour or 1997 8-hour standards does not automatically apply for the 2008 NAAQS.

Anti-Backsliding Requirements for 1-hour and 1997 Ozone NAAQS Nonattainment Areas

Anti-backsliding

- Proposing revocation of the 1997 ozone NAAQS on the date the final SIP Requirements Rule is published in the *Federal Register*.
- Areas still designated nonattainment for the 1997 or 1-hour NAAQS on that date will be subject to anti-backsliding requirements.
- Proposed anti-backsliding requirements reflect D.C. Circuit decisions on anti-backsliding and would codify approaches we use now in implementing 1-hour NAAQS anti-backsliding.
 - Section 185 fee programs, contingency measures for failure to make RFP or attain, and nonattainment NSR are “applicable requirements” that, in accordance with court decisions, continue to apply after 1997 ozone NAAQS is revoked.
 - Two valid paths to fulfilling anti-backsliding requirements (more detail on next slide).
- For 2008 NAAQS nonattainment areas with unmet SIP obligations for the 1997 NAAQS, we encourage states to develop 2008 NAAQS SIPs that achieve goals of both 1997 and 2008 ozone NAAQS.

Anti-backsliding summary

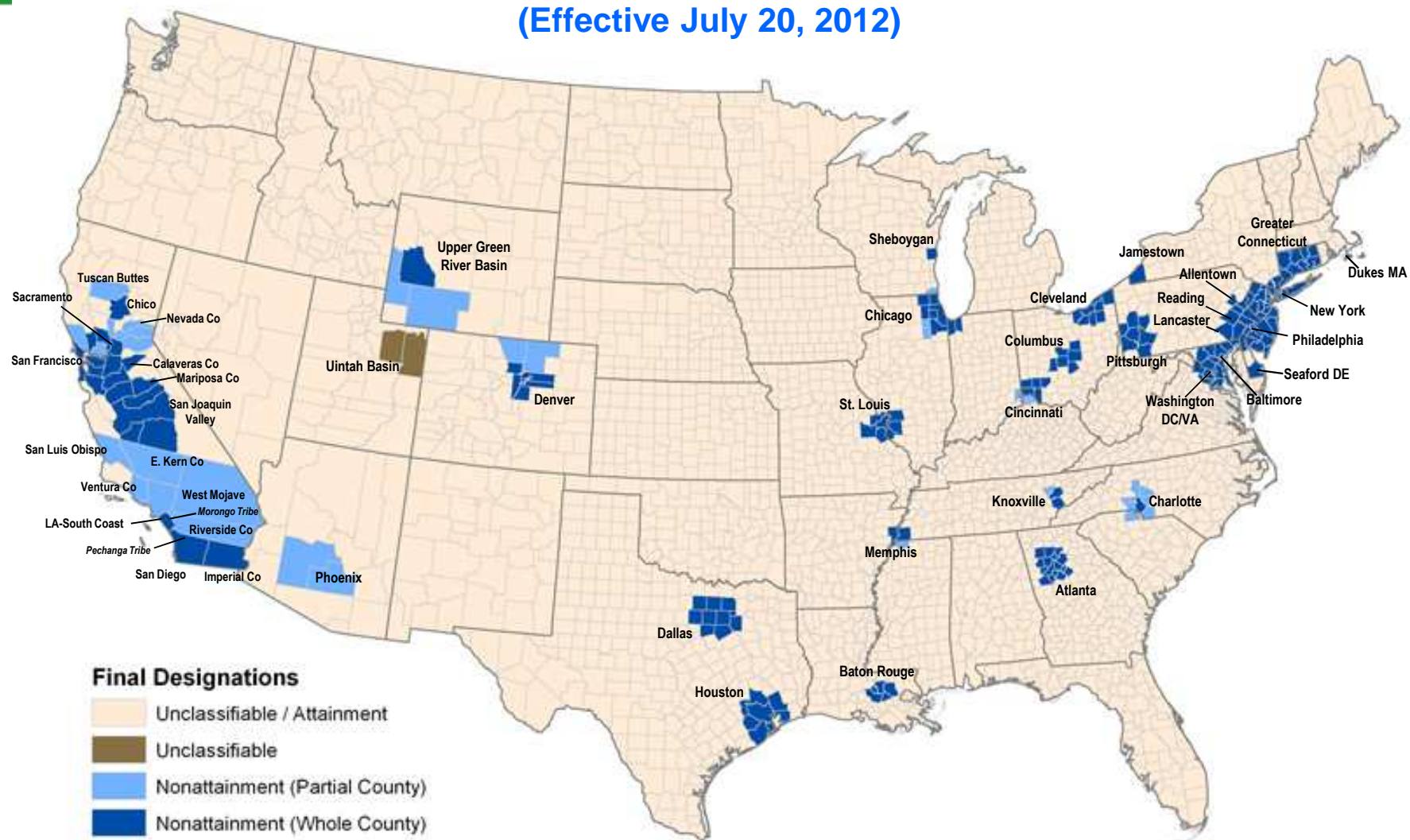
Designation for 2008 NAAQS	Designation for previous NAAQS (at time of revocation)	Proposed NSR/PSD obligations	Other proposed transition obligations
1. Attainment	Attainment/ Maintenance	PSD remains in effect	<ul style="list-style-type: none"> - Area remains subject to existing section 175A maintenance plan for the previous ozone NAAQS and requirements already in the SIP, subject to revision consistent with sections 110(l) and 193 - Section 175A maintenance plan satisfies maintenance requirement under section 110(a)(1).
2. Attainment	Nonattainment for 1997 ozone NAAQS only; or nonattainment for 1997 <u>and</u> 1-hour NAAQS	Nonattainment NSR in effect until revocation of the 1997 ozone NAAQS; then PSD applies	<ul style="list-style-type: none"> - Area remains subject to measures to meet nonattainment requirements already in its adopted SIP. Removable only with a section 110(l) demonstration and a section 193 demonstration if applicable. - Two alternatives to address section 110(a)(1) maintenance provision: <ul style="list-style-type: none"> a) Area's approved PSD SIP satisfies section 110(a)(1) maintenance provision, or b) additional maintenance showing under section 110(a)(1)
3. Nonattainment	Attainment/ Maintenance	Nonattainment NSR applies based on 2008 ozone NAAQS classification	<ul style="list-style-type: none"> - Area remains subject to existing section 175A maintenance plan for the previous NAAQS and requirements already in the SIP, subject to revision consistent with sections 110(l) and 193
4. Nonattainment	Nonattainment for 1997 ozone NAAQS only; or nonattainment for 1997 <u>and</u> 1-hour ozone NAAQS	Nonattainment NSR applies based on highest applicable classification	<ul style="list-style-type: none"> - Area subject to all applicable anti-backsliding requirements for 1-hr and/or 1997 NAAQS - Anti-backsliding obligations lifted when the area either is redesignated to attainment for the 2008 ozone NAAQS, or the EPA approves a redesignation substitute for the revoked 1-hour or 1997 NAAQS - EPA solicits comment on additional options for lifting anti-backsliding obligations.

QUESTIONS?

APPENDICES

Area Designations for 2008 Ozone NAAQS (Effective July 20, 2012)

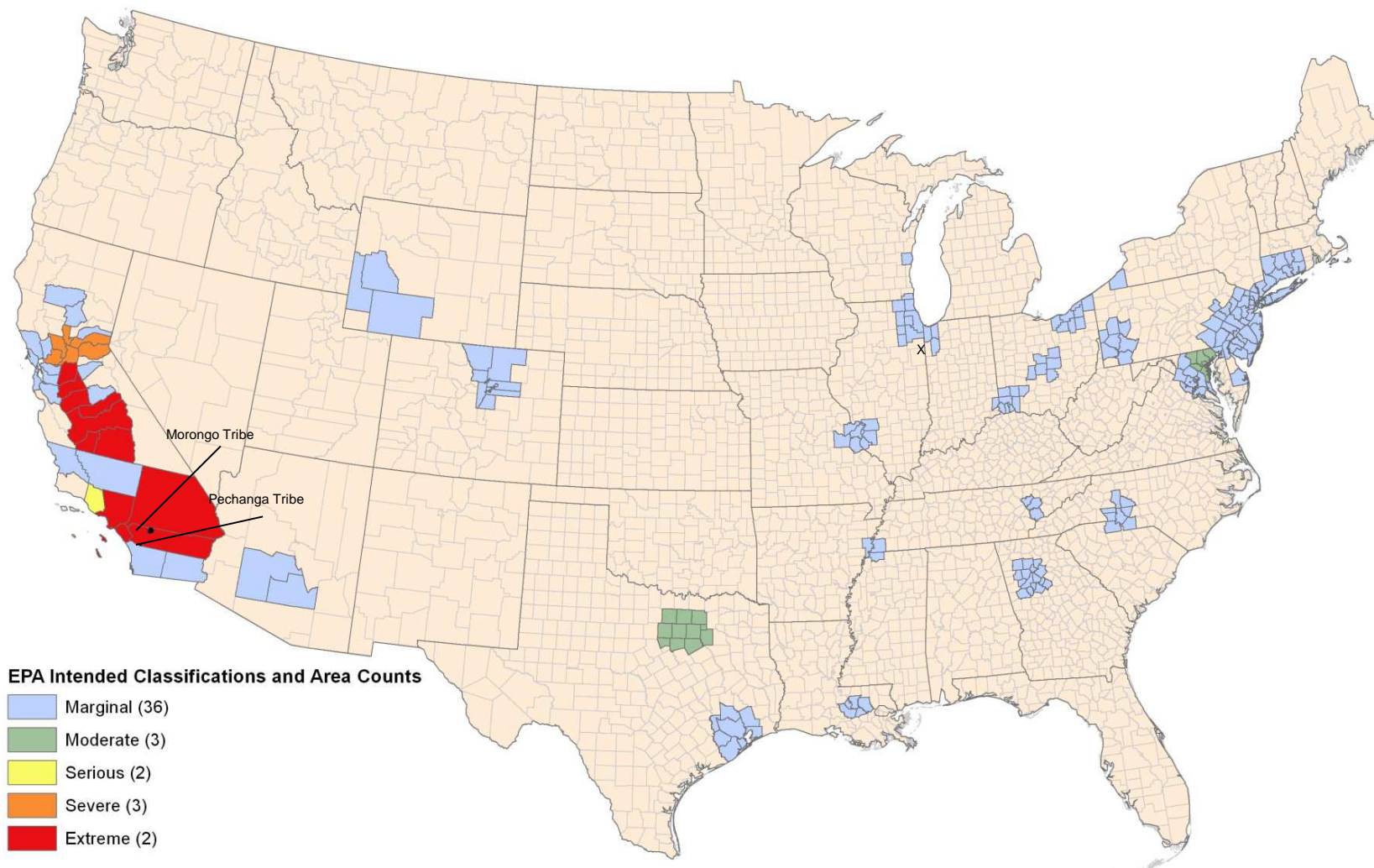
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Notes:

EPA has not designated as nonattainment any areas outside the Continental US.

NONATTAINMENT AREAS FOR 2008 OZONE NAAQS BY CLASSIFICATION (EFFECTIVE JULY 20, 2012)



Notes:

- EPA does not intend to designate as nonattainment any areas outside the Continental US.
- Map reflects classifications following requests for voluntary bump-up.